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Deputy Assistant Director, OER

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Interagency Coordinated Statements on Copper and Aluminum for the Power Project (Project No. 00.2870).

Attached are statements of the copper and aluminum positions of the Sino-Soviet Bloc and the Free World and estimates of production and consumption of copper and aluminum in each area for the period 1960-70. Both statements and sets of estimates have been coordinated with responsible personnel in OCDM and Commerce's BDSA.

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The Copper Position of the Sino-Soviet Bloc and the Free World, 1960-70

Although the Sino-Soviet Bloc has relatively large reserves of copper ore, production of copper has failed to satisfy consumption requirements since the Bloc was formed. This failure is attributed in large part to the unwillingness of the planners to allocate sufficient investment funds to the copper industry. To alleviate the resulting shortages of copper, the Bloc has imported annually large quantities of refined copper from the Free World. In 1958 the imports amounted to about 250,000 metric tons, and in 1959 nearly as much. During the 1960's each country in the Bloc intends to increase its production of copper. Reserves are available to support such increases, and copper technology in the Bloc is sufficiently modern to cope with whatever production problems that might be encountered.

Concomitant with the planned increases in copper production in the Bloc are increases in copper consumption. Although no specific data on the rate of growth of copper consumption are available, an estimate of such consumption can be made from the planned rates of growth of other segments of the economy of the Bloc, particularly that of the production of crude steel. Such information indicates that consumption requirements for copper will increase about as fast as production will increase. Therefore, even if the production plans for copper are fulfilled, production is expected to continue to fall short of consumption.

Copper production in the Free World during the next 10 years, in contrast to that of the Bloc, will continue to exceed, and productive capacity probably will increase faster than, consumption requirements. Most of the expansion in capacity will occur in South America and Africa. With excess productive capacity in the copper industry of the Free World on the one hand and a copper deficiency in the Bloc on the other, continued imports of copper from the Free World throughout the period can be anticipated. Estimates of production and consumption of refined copper in the Sino-Soviet Bloc and in the Free World for 1960, 65, and 70 are shown in a table, which is attached.

Estimated Production and Consumption of Refined Copper in the Free World and in the Sino-Soviet Bloc, 1960, 65, and 70

Unit: Thousand Metric Tons

	1960	1965	1970
Production of Refined Copper			
US	1,400	1,690	1,970
Other Free World	2,360	3,040	3,720
Total Free World	3,760	4,730	5,690
USSR	450	770	1,000
European Satellites	90	110	150
China - North Korea	110	165	220
Total Sino-Soviet Bloc	650	1,045	1,370
Consumption of Refined Copper			
Free World	3,450	4,360	5,260
Sino-Soviet Bloc	860	1,250	1,500

The Aluminum Position of the Sino-Soviet Bloc and the Free World, 1960-70

The Sino-Soviet Bloc has large reserves of aluminous raw materials, including bauxite, but available analyses indicate they are of lower quality than those currently being processed in the Free World. Nevertheless, aluminum production in the Bloc, principally in the USSR, has risen rapidly since the end of World War II, reaching an estimated 930,000 metric tons in 1960. Since 1955, the Bloc has been a net exporter of aluminum to the Free World, but the tonnages involved have not been large.

During the 1960-70 period, Bloc production of aluminum is scheduled to increase nearly three-fold. As far as can be determined from very incomplete information on planned uses, consumption of aluminum the Bloc should increase at least as fast as production and possibly even faster. Much of this increase in consumption is to take place in the construction industry, but sizable tonnages are to be used as substitutes for other metals in short supply such as copper and lead. The anticipated growth in the consumption of aluminum and the relatively lower quality of the aluminous raw materials in the Bloc suggest that sometime during the period the Bloc will cease being a net exporter of aluminum. The chances are good that the Bloc will become a net importer of aluminum toward the latter part of the period, particularly if the program for the construction of new production capacity suffers any delays.

In the Free World production and consumption of aluminum are expected to more than double over the 1960-70 period. Although plants in North America and Western Europe will continue to produce most of the aluminum used in these areas, some of the new capacity probably will be built overseas. If current plans for constructing lower cost facilities in Africa materialize, very likely such facilities will be the source of increasingly larger imports.

Although the estimates of production and consumption of aluminum in the Sino-Soviet Bloc and in the Free World are shown to be equal in the attached table, a tight supply situation in the world aluminum market is not implied. Should consumption in the Free World increase faster than estimated, new capacity undoubtedly will be constructed, so that capacity for producing aluminum metal will continue to exceed actual output by about 10 percent. Under these conditions, if Bloc output of aluminum metal falls short of meeting domestic requirements, it should have no difficulty in getting supplementary supplies from the Free World.

Estimated Production and Consumption of Primary Aluminum in the Free World and in the Sino-Soviet Bloc, 1960, 65, and 70

Unit: Thousand Metric Tons

	1960	1965	1970
Production of Primary Aluminum			
US	1,900	2,700	3,800
Other Free World	1,700	2,700	4,100
Total Free World	3,600	5,400	7,900
USSR	680	1,400	2,000
European Satellites	160	240	250
China - North Korea	90	180	250
Total Sino-Soviet Bloc	930	1,820	2,500
Consumption of Primary Aluminum			
US	1,900	2,900	4,200
Other Free World	1,700	2,500	3,700
Total Free World	3,600	5,400	7,900
Sino-Soviet Bloc	900	1,700	2,500-3,000